The University of Chicago

THE NOMINALISM OF WILLIAM OF OCKHAM

A PART OF A DISSERTATION SUBMITTED TO THE FACULTY OF THE DIVISION OF THE HUMANITIES IN CANDIDACY FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

DEPARTMENT OF PHILOSOPHY

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STEPHEN CHAK TORNAY

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WILLIAM OF OCKHAM'S NOMINALISM

WILLIAM OF OCKHAM stands out from a background of the medieval twilight as a peculiarly neglected figure. While he is far from being adequately treated by continental writers, he has no place whatever in the world of English literature. He is certainly a prophet not accepted in his own country. Überweg's usually very comprehensive bibliography in his *Grundriss*[1] mentions up to the year 1928 thirteen monographs dealing with Ockham: 8 in German, 2 in French, 1 in Dutch, 1 in Latin, and none in English. This regrettable neglect may be explained by the historical circumstances connected with Ockham's works. Of the works attributed to him we know of 20 philosophical and theological treatises, 8 of which are in print and 12 in manuscripts. He wrote 11 political treatises, 5 of which were printed and 6 are in manuscripts. This means that only 42 per cent of Ockham's works was ever printed, the rest being still in manuscript. If we add that his printed works were never re-edited after the year 1675, the scarcity of books on him may be explained by the difficulty in consulting the original sources.

The neglect which William of Ockham has suffered is justly to be resented if we consider the fact that the Oxford Franciscan is generally accepted as a philosopher of first-class importance. His significance grows to almost epochal dimensions if we follow up the tremendous influence his nominalism or terminism exerted on the ages. It may be safely stated that the philosophical development of our modern period, empiricism and subjectivism, anti-intellectualism and pragmatism, and our total positivistic preoccupations, can be traced back to the cell of the restless and energetic Franciscan and to his nominalism. He is not only the *Inceptor omnium Nominalium monarcha,* the *Invictissimorum Nominalium inceptor,* the *Achademie Nominalium princeps* and the *Nominalium antesignanus,*[2] but a very prominent herald of modern philosophy.

The following is an attempt to delineate Ockham's essential

[1] Friedrich Überweg's *Grundriss der Geschichte der Philosophie* (Berlin, 1928) II 781.

[2] Ancient titles of Ockham quoted by Überweg, *Grundriss* II 575.

contribution, his nominalistic or terministic theory of knowledge to which he owes his chief fame.

It would be a task comprising practically the total domain of cultural developments in the West to point out the causes which so devastatingly shook up the realistic philosophy of concept at the end of the Middle Ages. The universal or class-concept, discovered by Socrates as the rock of knowledge, extended by Plato to cosmic bases and developed by Aristotle as the indwelling principle of all actuality, was eagerly accepted by both the Augustinian and Thomistic lines of thought as surety to guarantee the solidity of science and life. Logic was projected into ontology as a pertinacious pursuit of self-assertion to impose anthropology upon the world. The stubborn facts of human defeat were bound to open the eyes sooner or later to the futility of such anthropocentrism. Realism, which had been dominant throughout the centuries of the Middle Ages, received its first serious blows under the onslaughts of Roscelin and Abelard. The historical rôle, however, of undermining its foundations in a fatal manner, was reserved to William of Ockham. After him moderate realism found its exclusive home mostly in the recluse of church institutions.

The road to his task was immediately prepared by what was called in Ockham's time the *Logica modernorum,* a logic presenting a reborn Phoenix-bird of long forgotten grammatical interests once cultivated by the Stoics. This logic as developed at the end of the thirteenth century was a grammaticized logic and a logicized grammar.[3] It dealt with the nexus between grammatical forms and thought-forms. The chief representant of this new logic was the *Summulae logicales* of Petrus Hispanus, a book that had a dominating influence up to the sixteenth century. In the famous seventh chapter of the *Summulae,* Petrus Hispanus develops the *proprietates terminorum,* a treatise dealing with the grammatico-logical properties of words such as: *significatio, suppositio, ampliatio, appellatio, restrictio, distributio, exponibilia.* The chief property of a word is considered the signification with the supposition following it. "The signification", says Petrus Hispanus, "is prior to supposition; they differ in that the signification belongs

[3] Carl Prantl, *Geschichte der Logik im Abendlande* (Leipzig, 1867) III xvii 73.

to a word, while the supposition belongs to a term already composed from the word and signification".[4] The new logic undertook to investigate the various modes of signification and initiated a new literary form called "de modis significandi" widely cultivated in the ensuing period.

There cannot be the least doubt that the widespread cultivation of grammaticized logic with its unceasing investigation of the significatory modes of the noun, pronoun, verb, adverb, participle, conjunction, preposition, and interjection, was the immediate occasion for Ockhamist nominalism. Logic, which used to have the character of a scientific methodology,[5] now, by its intimate connection with grammar, became a *scientia sermocinalis,* that is, a science dealing not with aspects of truth and error, but with meanings and significations.[6] Grabmann translates the word *grammatica speculativa* as *Bedeutungslehre,* and Heidegger the doctrine of the *modi significandi* as the doctrine of *Bedeutungsformen.*[7] Logic, which used to teach *vere loqui,*[8] began after its alliance with grammar to teach *recte loqui.* Interest was centered now not on the right relationship to the ontological realm in order to obtain truth, but on the content of thought immanent in words, and on the function of the various forms of thought. Thus the *modi essendi et subsistendi* went more and more into oblivion and the *modi significandi et intelligendi* moved into the center of interest. Stress was put on their intentional inexistence rather than on their ontological referents. After such forerunners as Durandus of St. Pourçain (1270-75-1334)[9] and Peter Aureoli

[4] *Summulae logicales* VII 1, 1, 2 (f. 209A) in Prantl, Chap. xvii, 51, Anm. 201.

[5] Lambert of Auxerre, *Summa logicae,* Cod. Sorbonn. 1797, in Prantl xvii 26, Anm. 100: "Logica est scientia discernendi verum a falso per argumentationem."

[6] Roger Bacon, *Opus tertium* xxviii 104, in Prantl xvii 122, Anm. 560: "Cum logica comprehendo grammaticam, quia communi nomine utraque logica dicitur, *i.e.,* sermocinalis scientia, nam logos idem est quod sermo in una significatione."

[7] Martin Grabmann, *Mittelalterliches Geistesleben* 117.

[8] *William Shireswood,* Cod. Sorbonn. 1797, in Prantl xvii 12, Anm. 32: "Quasdam autem [anima] facit operationes, per quas deveniat in scientiam, et de his est sermocinalis scientia; haec autem tres habet partes: grammaticam, quae docet recte loqui, et rhetoricam, quae docet ornate loqui, et logicam, quae docet vere loqui."

[9] *Sent.* II, dist. 3, q. 7, fol. 107, I Q, in Maréchal, *Le point de départ de la métaphysique,* Bruges-Paris, 1923: "The universal does not precede the act of intellect, but rather is produced by the act of intellect."

(d. 1322),[10] it was William of Ockham who came to unfold fully the implications of this changed interest and develop on its basis his nominalistic theory of knowledge.

Ockham's epistemology centers entirely around the notions of signification and supposition, as the following will elucidate. The task of epistemology is to investigate the problem of the possibility of knowledge. What is Ockham's position concerning this problem? How does he build the bridge which is supposed to connect the external world with the mind? His first task is to clear the ground by rejecting the 'copy' or 'species' theory. The realists, in order to explain how the material world can affect the immaterial soul, inserted the sensible and the intelligible species considered as something immaterial. The species was the vehicle whereby the copy or similitude of some extramental reality arises in us. Ockham rejects the sensible species as superfluous, and the intelligible species as impossible. For if matter cannot affect the immaterial soul, how can it produce the immaterial species? Again, if matter cannot act at a distance on the soul without the species, how can it produce the species at a distance?[11]

Having eliminated the 'species' or intentional copies of things from the mind, he had to square accounts with the theory which assumed a cognitive 'adequation' between the intellect and the extramental thing. According to Aristotelian or moderate realism the universal concept or intention in which the species crystallizes itself by the efficiency of the active intellect has an ontological counterpart corresponding to it conceived by Aristotle as immanent (ἐνυπάρχον) in the particular things. Truth is an adequation of the knowing mind with this ontological counterpart. To be sure, the 'universale in re' is not a subsisting something in the thing. The form, as a universal, does not exist except in the mind.[12] Nevertheless, it is in the thing as the formal principle individualized in and by the material substratum. Says St. Thomas:

[10] *In Sent.* I, d. 23, a. 2, in Überweg, *Grundriss* II 527: "It is manifest that the aspect of man and animal in so far as it is distinguished from Socrates is a fabrication of the intellect and is nothing but a concept."

[11] *In Sent.* II, qu. 15, O. I am using the 1495 edition printed in Lyon, now the property of the library of the Peabody Institute.

[12] St. Thomas Aquinas, *Contra gent.* I, c. 65: "Universalia non sunt res subsistentes, sed habent esse solum in singularibus." *Contra gent.* I, c. 44: "Forma per modum universalem non invenitur, nisi in intellectu."

"For if we consider the nature of gender and species itself, as it is in the singular objects (*prout est in singularibus*) we will find it somehow as the formal principle with respect to the singular objects."[13] This formal element is the ontological foundation of our conceptual knowledge and the chief object of all scientific investigation.

This realistic account of the possibility of knowledge receives the most careful consideration from Ockham. His commentary to the *Sentences* of Peter Lombard contains a veritable arsenal of proofs against it. "All whom I meet agree", so he begins, "by saying that the entity which is somehow universal is really in the individual, although some say that it is distinguished really, others that it is distinguished only formally, and some that it is not distinguished at all according to the nature of the thing, but only according to reason or by the consideration of the intellect. All these opinions coincide in that the universals are somehow from the side of the thing, so that they are universal really in the singular objects themselves."[14] He calls this opinion a "false and absurd view".[15]

From the immense number of arguments which Ockham lines up against the realistic universal we can present only a few typical ones.

Against the view of St. Thomas he argues thus: If the universal exists as something really distinct from the individual it must be numerically one and, therefore, something singular and not universal. But how could a singular thing as such exist in many things at once?[16] If humanity were a thing different from the singular individuals, one and the same thing would be in many individuals, which would be condemned in Judas and saved in Christ and, hence, there would be something condemned and miserable in Christ, which is absurd. In much the same manner, God could not, then, annihilate an individual without destroying all the individuals of the same genus.[17]

Against the formal distinction of Duns Scotus this is his argument: It is impossible to distinguish the common nature from the

[13] *Summa theol.* I, qu. 85, art. 3.
[14] *In Sent.* I, dist. 2, qu. 7, F.
[15] *In Sent.* I, dist. 2, qu. 4, D.
[16] *In Sent.* I, dist. 2, qu. 4, D.
[17] *Summa tot. log.* II, 2, f. 25 v. B, in Prantl's *Geschichte der Logik* xix 350, Anm. 794.

individual difference formally without falling back to a real distinction. If "there is in Socrates a human nature which is contracted to Socrates by an individual differentia, which is not distinguished really, but formally, from that nature, we should have a thing which was universal and particular at the same time." Therefore "it is impossible to admit that in created things something differs formally without being distinguished really. But granting this distinction, the view is still untrue. If nature were common in that manner, it follows that there would be just as many species and genera as there are individuals."[18] In that case consequently, there is no place left for a common nature. The objection that the universal is of the essence of Socrates, and not the total essence of Socrates, does not have any strength. In that case "every individual would be an aggregate of an endless number of actual things, namely of those common features which are predicated of it".[19] This argument is directed specifically against the *'formalitates'* or metaphysical cross-sections of Duns Scotus, which were supposed to subsist actually in the particular.[20]

Against the third view maintained by such men as Aegidius Romanus (1247-1316) and Walter Burleigh (d. after 1343), which identifies the universal with the particular, and yet nevertheless finds a ground to distinguish them by a virtual-mental distinction, Ockham points out that there is no justification whatever for such distinction. The intellect must not change the thing. If it is individual and particular, it should not be declared universal.[21]

The result of Ockham's attacks against the realistic universal is summed up in the following manner: "To conclude, I say that there is no such a thing as a universal, intrinsically present in the things to which it is common."[22] "No universal . . . is a thing existing in any way outside of the soul, but everything which can be predicated of many things is by its nature in the mind either psychologically (*'subjective'*) or logically (*'objective'*) and nothing of that sort is of the essence or quiddity of any substance."[23]

[18] *In Sent.* II, qu. 9, C. C.
[19] *In Sent.* I, dist. 2, qu. 4, D.
[20] *In Sent.* I, dist. 2, qu. 6: "Ista opinio est, ut credo, opinio subtilis doctoris, qui alios in subtilitate iudicii excellebat."
[21] *In Sent.* I, dist. 2, qu. 7, L.
[22] *In Sent.* I, dist. 2, qu. 4, D.
[23] *In Sent.* I, dist. 2, qu. 8, Q.

After having discarded the realistic universal Ockham continues to work out in his own way the explanation of how knowledge is possible. It is precisely at this point that the *Parva Logicalia,* the seventh chapter of Petrus Hispanus' *Logic,* came to his help. By utilizing the new notions of speculative grammar he built his theory of knowledge and arrived at his nominalism. For the discarded theory of *copy* and *adequation* he substituted a new one: that of the *sign* and *signification.* Between the two theories there is a world of difference. In Ockham's view all our conceptions are mental signs which signify the external things. "A sign is anything that, as apprehended, presents something else to cognition."[24] "The intention wherewith I understand men is a natural sign signifying man, just as natural as a sigh is the sign of infirmity or pain. It is a sign which can stand for men in mental propositions."[25] Signs insofar as they stand in a proposition are called terms, *termini.* "A term is nothing else but the subject or predicate of a proposition as signifying something."[26] "The term is threefold: written, spoken and conceived. The words are signs subordinated to the concepts or intentions of the soul. First the concept signifies something naturally and then, second, the word signifies that same thing. The concept or passion of the soul signifies whatever it signifies naturally; the spoken or written term, on the other hand, does not signify anything except by voluntary agreement. The spoken or written term can change its signification at discretion; the concept-term, on the other hand, never changes its signification at anyone's pleasure."[27] The important word in these preliminary remarks of Ockham is the word 'natural'. It gives us the clue to everything he has to say concerning the conditions and validity of knowledge. The bridge that he intends to build from the mind to the world will be constructed out of the steel of natural significance.

Our analysis of Ockham's gigantic efforts to build a bridge will fall into two parts, treating of the hither and thither sides of the structure devised to span the chasm between the mind and the world. Let us concentrate, first, on our side of the mind-world relationship and investigate *the nature of mental signs* in their

[24] *Summa totius logicae,* I, 1, cap. 1.
[25] *Ibid.* I, 15, f. 6, v. B.
[26] *Ibid.* C. 2, f. 2, v. A.
[27] *Expos. aurea,* Perierm. Prooem., in Prantl, *loc. cit.*

psychological aspect. What is a mental sign considered in itself, in its entity as a mental fact? Ockham calls it an "intention of the soul", a word derived originally from Avicenna. "An entity in the soul meant to signify something is called the intention of the soul. This subsisting something in the soul which is a sign of the thing and out of which mental propositions are composed, is sometimes called the intention of the soul, sometimes the concept of the soul, sometimes the passion of the soul, sometimes a likeness of the thing."[27]

Now, "what is that in the soul", we hear the author asking himself, "which is such a sign?" Ockham takes three views into account. According to the one, the mental entity that functions as a sign is a mere fictitious likeness, *quoddam fictum,* of the object without any psychological actuality of its own. It is a merely thought-out something, a purely logical fiction which is supposed to represent the external objects. Ockham eliminates this view on the same grounds on which he had cancelled the realistic species. Both the psychological entity of the species and the logical entity of the *fictum* impede cognition and are superfluous. According to another opinion, the mental intention which signifies is some quality of the soul, distinct really from the act of intellect because resulting from it, which as a resemblance of the external thing represents that thing. Even this view is against his famous law of parsimony, according to which *nunquam ponenda est pluralitas sine necessitate,*[28] or, expressed in another way, *frustra fit per plura quod potest fieri per pauciora.*[29] Therefore he adopts the simplest view, which we also find in Durandus, according to which "the passion of the soul is the act of intellect itself. This seems to me to be the most probable of all opinions",[30] "for all that can be saved by adopting something distinct from the act of intellect, can be saved without such distinction."[31]

This knowledge that the intention of the soul in its psychological entity is an act of intellect is to be extended now to the extremely important subclasses of the first and second intention.

[27] *In sent.* I, d. 27, qu. 2, K.
[28] *Summa tot. log.* I, 12, ed. Ven. 1522, fol. 6, r. A.
[30] *Expos. aur. Perierm.* Prooem. [31] *Summa tot. log.* I, 1, c. 12.

"The first intention is to be understood as a mental name meant to stand for its signified object. The second intention, on the other hand, is that which is a sign of such first intentions, *e.g.*, genus, species, and such others."[32] "The act by which the intellect understands an object outside the soul is called direct, and the act by which this direct act is understood is called reflex."[33] The first intention, then, is any mental act which directly and immediately signifies one individual object, like Socrates, or a class of individual objects, like man, animal. The second intention, on the other hand, is a mental act signifying a first intention, expressing for instance some characters of it, such as genus, species, individuum, and so on. The first intention is called by Ockham a thing, that is, something psychologically subsisting in the soul, while the second intention is not a psychological but a logical fact which is applicable to the things and is predicable of them. The distinction between these two kinds of intentions is very clearly expressed in these words.

> The logician principally has to consider the distinction between the names of first and second intention. And precisely herein lies the difference between the names of first and second intention, that the names of the first intention are those which when they substitute directly, stand precisely for things, *leaving out of question their predicability of things.* The names of the second intention, on the other hand, stand for *various modes which are predicable of things.*[34]

In connection with the division of intentions we should become acquainted with Ockham's division of names or signifying words. Names which directly signify our intentions, be they of the first or second type, are called names of first imposition. Names which signify such names of first imposition are called names of second imposition, such as name, verb, substantive, adjective, adverb, etc.[35]

The notion of second intention, being identical with that of the universal, leads us to the most important part of Ockham's epistemology. The universal in his opinion is an intention of the soul, which as a mental fact is something singular in the mind. "Every universal is one singular thing and is universal only by

[32] *Summa tot. log.* I, 12, f. 6, r. B.
[33] *Quodlib. II,* qu. 12, in Prantl, *loc. cit.*
[34] *In Sent.* I, dist. 23, qu. 1 D. and J.
[35] *In Sent.* I, dist. 22, qu. 1, C.

signification of many things. The universal is one and a single intention of the soul meant to be predicated of many things; insofar, however, as it is a single form subsisting really in the intellect, it is called singular."[36] How now does the universal character enter into a singular intention? It enters by way of abstracting from various individual objects one and the same element, on the basis of which all of them can be held together in one representative act. This process is entirely natural and spontaneous without any planned activity of the intellect and will, and is to be understood in terms of a cause-and-effect relationship. "The universals and second intentions are caused naturally without any activity of the intellect and will by the knowledge of simple terms. They come about in this manner: first, I apprehend in particular some singular objects intuitively or abstractly."[37] "This is caused by the object or by a predisposition from a former act. This act consummated, presently, if there is no obstacle, another act follows, distinct from the first and terminating in something of the same kind of a logical being which was seen before in the psychological being. This second act *produces* the universals and second intentions."[38]

The origin of the universal, then, is traced to external objects and to their effects in the soul which are the intuitions. "No intellectual act", we learn, "is without a phantasm for the reason that all intellectual cognition necessarily presupposes in our present status sensitive imagination both of the exterior and interior sense."[39] Now in Ockham's doctrine every intention of the soul, whether first or second, intuited or abstracted, is significatory. Hochstetter, analysing this significatory character of intuitions, calls our attention to its remarkable resemblance to Helmholtz's theory of *Sinnliche Zeichen,* according to which "the same object exerting its influence under the same circumstances brings

[36] *Summa tot. log.* I, 1, c. 14.

[37] "Abstract knowledge can be taken in two ways" for Ockham. "One way refers to some thing abstracted from many singular objects. In this sense abstract knowledge is nothing else than the knowledge of some universal which is abstracted from any things. In the other sense, abstract knowledge is taken as what it abstracts from the existence and non-existence and from other conditions which happen contingently to the thing or are predicated of it" (*In Sent.* Prol. qu. 1, Z).

[38] *In Sent.* II, qu. 25, P.

[39] *In Sent.* Prol. qu. 1, V. V.

forth the same sign and different impressions correspond always to different signs".[40] This preliminary intuition is the intermediary between the external object and the intellect, which leaves a certain trace in us exactly as in the modern doctrine of the substitute stimulus. "Something not previously there is deposited behind in the imaginative faculty, mediated by the intuitive cognition of particular sensation",[41] "some kind of a predisposition bent to imagine the previously sensed object."[42] This substitute stimulus may revive the original intuition and act in its stead as a cause with reference to the intellect. Repeated causal actions of the external object or of the substitute stimuli create in us in Ockham's expression a certain habit,[43] with an inclination to revisualize the previously sensed object. This process is described with great analytic power in the following words.

> I am certain that I understand a stone in virtue of the sight of the stone and in virtue of the primary vision. I am certain that I understand by experience because I see the image of the stone. The certainty of understanding the stone, however, comes by reasoning from effect to cause. I know fire by smoke when I see smoke alone, because I have on other occasions seen smoke caused by the presence of fire. In the same manner, I know the stone because on other occasions I have perceived intellectually the production of such an image in me.[44]

The process of abstraction in these words is described entirely in terms of similar experiences caused by objects, through intuitions or habits, resulting in a new or second intention: the universal. The distinctive mark of every universal is to be a sign for all the individuals involved in the abstraction. "The intention of the soul is universal, because it is a sign which can be predicated of many."[45] The process of abstraction, then, ends in an intentional sign, which reciprocally refers back to the *inferiora* in a significatory manner and is predicable of them.

In the notion of predicability we have reached the very essence of the universal. Ockham is very emphatic in pointing out that, although the universal is embedded in a psychological act, yet

[40] Hermann von Helmholtz, *Die Tatsachen in der Wahrnehmung* 222, in Erich Hochstetter, *Studien zur Metaphysik und Erkenntnislehre Wilhelms von Ockham* (Berlin, 1927) 118.

[41] *In Sent.* II, qu. 15, C.

[42] *In Sent.* II, qu. 17, S.

[43] *In Sent.* II, qu. 15, C and qu. 17, S: "Habitus quidam inclinans ad phantasiandum objectum prius sensatum."

[44] *Quodlibet.* I, qu. 14.

[45] *Summa tot. log.* I, 1, c. 14.

according to its inmost essence it is not a psychological, but a logical entity. He refuses to call it an idea,[46] because ideas and images are psychological entities. To quote the *Venerabilis Inceptor*:

> The universal is not some real thing having a psychological being (*esse subjectivum*) in the soul or outside of the soul. It has only a logical being (*esse objectivum*) in the soul and is a sort of fiction having the same sort of entity in the logical realm as the external thing has in the psychological realm. Figments have no psychological being in the soul, for they would then be really things and, thus, a chimera and centaur and other such things were all real things. There are, then, certain entities which have only logical being. In the same way, propositions, syllogisms, and such other things as logic treats, have no psychological being, but only a logical being: and so *their being is their being understood.*[47]

To be sure, when Ockham calls the universals fictions, he is far from subscribing to the theory of *fictum* or *idolum* which he refuted before. That theory was an explanation of the psychological existence which the first and second intentions have in the soul, while this conception adds the logical character to second intentions or the universals, the psychological status of which he described as acts of intellect.

The foregoing analysis of the abstraction was intended to point out the genesis of the universal in Ockham's epistemology, and to bring to consciousness the revolutionary shift which was performed by his transplanting the universal from the realm of ontology to that of psychology and logic. When he put down the following simple sentence, "the second act (following that of the intuition) *produces* the universals and the second intentions and *does not presuppose them*",[48] he was writing a new chapter in the annals of history. Again, when he unhesitatingly announced that if both our intuitions and abstractions, sensations and concepts, are mental signs, "we know only propositions, and any science, real or rational, deals exclusively with propositions as such",[49] he initiated a new period in the history of philosophy.

So far we have been dealing with our side of the mind-world relationship in itself and in its psychological aspects. The second part of this essay will concentrate on the other side of this rela-

[46] *In Sent.* I, dist. 35, qu. 5, G.
[47] *In Sent.* I, dist. 2, qu. 8, F.
[48] *In Sent.* II, qu. 25, O.
[49] *In Sent.* I, dist. 2, qu. 4, M.

tionship, that is, it will deal with the possibilities of connecting the world with the mind. In other words, it remains to be seen how the validity of knowledge can be established on the basis of Ockham's nominalistic epistemology.

Ockham accepts as a basic fact, to begin with, that the substratum of all knowledge is furnished to us from an extramental world by means of natural causation. Our sensations and intuitions are effects produced in our sensitive faculty by singular objects in the external world which act as causes. We are, to use his word, "moved" by externally originated sensory influences, whereby we begin to know the objects of the world.[50] Science, however, does not deal with concrete data exclusively. In Ockham's words: "Since all our knowledge derives from the senses, every science too originates from individual objects, although no doctrine should treat of singular things. Properly speaking, there is no science of individuals but of universals standing for individuals."[51] It is the realm of universals, then, which has to be examined carefully as to whether it is a public receiving-station recording actual messages coming from the extramental world, or a mere private laboratory manipulating with mere subjective elements in isolation.

Having eliminated the universal from the ontological world, Ockham had to face the task of saving the valid and objective character of conceptual knowledge. He has cut the ropes which were connecting the boat of the mind to solid grounds. Now he has to prove that the signals which he installed were safe enough means of maintaining contact with the shore. He was quite confident that he could find his orientation with mental signs and their signification just as well as the realists did with their own theory of copy and adequation.

The dangerous character of his doctrine of universals lies in the fact that he explicitly compares them with mental fictions (*fictum, figmentum*). The universal as such has no psychological being in his theory. It is supported by the vehicle of an act of intellect, yet, as such, as an universal, "it is only a logical entity in the soul and is a sort of fiction having the same sort of existence in the logical realm as the external thing has in the psychological

[50] *In Sent.* I, dist. 2, qu. 7, F. [51] *Expos. aur.* Praedicab. De specie.

realm . . . so that their being is their being understood".[52] Such a purely logical product has an unmistakable similarity with mere mental inventions.

Nothing would be more regrettable for Ockham than to see his theory sinking in the morass of subjectivity. The following passage shows his concern very clearly: "The universal is not such a fiction as has nothing similar corresponding to it in the extramental world. It is not a figment like a chimera or something of that sort. That thing can be called a universal which is a likeness (*exemplar*) related without any difference to all external single things and which because of that similitude in the logical being can stand for the external things."[53]

The two apparently realistic expressions which occur here, *exemplar* and *similitudo,* may be taken for the fact that Ockham was willing to adopt the very words of his adversaries rather than give up the objective validity of his universals. On closer investigation, however, it is evident that his meaning is very different from that of the realistic similitude between the *species sensibilis* or *intelligibilis* and the external object. According to his opinion, knowledge based on the similarity of the object and its representation is impossible. To quote him: "Nothing can be represented unless the thing to be represented is known previously."[54] Knowledge based on similarity would postulate *a priori* elements in the mind. The following brings this out very clearly.

> When the knowledge of a similarity produces the knowledge of that to which it bears a resemblance, to know the fact of similarity is not a sufficient cause for the intellect, but it is necessary to have a habitual knowledge of that to which it bears a resemblance. Therefore, if somebody saw the statue of Hercules, without knowing anything about Hercules, he would not by that think rather of Hercules than of Achilles, unless he knew Hercules first and there remained in him the habitual knowledge of Hercules.[55]

This realization of the impossibility of an *a priori* knowledge brings him to the conclusion that knowledge based on similarity between object and representation is altogether impossible.

What is, then, that similitude in the logical realm, on the basis

[52] *In Sent.* I, dist. 2, qu. 8, F. [53] *In Sent.* I, dist. 2, qu. 8, F. and E.
[54] *In Sent.* II, qu. 15, T: "Nihil potest per aliud representari nisi representatum fuerit prius notum."
[55] *In Sent. Prol.* qu. 9, L.

of which the universal can stand for external things and can be predicated of them? It cannot be the external similitude of the accidents of things as we find it in the doctrine of Abelard and the moderate realists in general. We do not know anything directly about those accidents. The representations we have from them do not show their characters adequately. Ockham even goes so far as to say that "the thing is not more present to the mind by the act of intellect than Caesar is present to somebody by a picture".[56] True to his Augustinian preoccupations he states that the purely intelligible facts such as acts of intellect, acts of will, pleasure, sorrow, and the like, which one can experience as internal, are known to us with greater certainty than the things which fall under the senses. "Anybody could doubt the sensuous experiences", he quotes St. Augustine, "but not such experiences as these: I know I am living; I know I want to be happy; and I know that I do not want to err."[57]

In what, then, lies this important notion of similarity? After what we know about his views on the superiority of inner experiences, we shall find it quite consistent when he says that it lies *in the similarity of experience.* Repeated impressions of stones, for instance, produce in us a reiteration of the original experience when we touched stone for the first time. Because of the similarity of these impressions and on the basis of such repeated and resembling experiences the intellect molds them into an *exemplar,* a logical *fictum,* into a meaning, quite in the sense of the *Bedeutungen* of Husserl;[58] and this logical focus of accumulated similar experiences is the universal which functions for all stones,[59] signifies them, and stands or supposits for them in logical propositions. The similarity, then, upon which he founds his universal concept is a functional similarity of resembling cognitive processes or experiences.

The road to this notion of the universal was prepared for Ockham in Aristotle's account of how universals originate. "Out of

[56] *In Sent.* I, dist. 27, qu. 3, X: "Res non plus capit esse per hoc quod intelligitur quam Cesar per hoc quod pingitur, nec plus est presens intellectui per intellectionem proprie loquendo et de virtute sermonis quam Cesar est presens alicui per picturam."

[57] *In Sent.* Prol. qu. 1, K. K.

[58] *Überweg,* Grundriss II, 577.

[59] *Quodlib.* I, qu. 14.

sense-perception", says the Philosopher, "comes to be what we call memory, and out of frequently repeated memories of the same thing develops experince; for a number of memories constitute a single experience. From experience again originate the skill of the craftsman and the knowledge of the man of science."[60] Ockham literally includes these words of the *Posterior Analytics* in his *Expositio aurea* by saying: "Every science starts from individuals. From sensation, which gives only singular things, arises memory, from memory experimentation, and through experimentation we get a universal which is the basis of art and science."[61] These quotations give new clues to the often repeated statement that Aristotelian empiricism is an introduction to nominalism.

How now does the logical meaning of accumulated experiences connect with the external world? This is explained by the following words of Ockham: "I understand by experience because I see the image of the stone. The certainty of understanding the stone, however, comes by reasoning *from effect to cause.*"[62] The repeated similar experiences, recorded in the logical realm, come as effects from the world by way of natural causation. Consequently, the universals which are in the focal point of these effects are veritable Morse signs conveyed by the electric current of natural causation. Ockham's logical realm operates very much like an electromagnetic telegraph-apparatus, where the signals caused by the electric circuit connect us with the encircling world. There is probably no other conception to which Ockham would cling more tenaciously than that of *natural signification.* "It is sufficient", he says, "that the intention be something in the soul, a sign naturally significatory of something for which it can stand."[63] Few expressions occur more often in his writings than that of a natural signification.

At this point it will be appropriate to outline the important distinction between the natural and the conventional universal, which is a decisive factor in solving the problem of Ockham's much discussed nominalism. In his own words:

> The universal is twofold: natural and conventional. The first is a natural sign predicable of many things, as smoke naturally signifies

[60] *Analytica Posteriora* II 19, 100a3-8.
[61] *Expositio aurea.* Praedicab. De Specie. in Prantl, *op. cit.* III 332, Anm. 750.
[62] *Quodlib.* I, qu. 14.
[63] *Summa tot. log.* I, 12, f. 6, r. B.

> fire and a groan the pain of the sick man and laughter a certain interior joy. The conventional universal is one by voluntary institution. Such is the spoken word which is an actual quality, numerically one, and universal because of its being a voluntarily instituted sign for the signification of many things.[64]

Lothar Kugler, in his chapter *"Ist Ockham Nominalist?"*,[65] discusses the complications of the problem whether Ockham is a conceptualist or a nominalist and speaks of a conceptualistic-nominalism and of a nominalistic-conceptualism with great precision. My own position in this controvery is the following. By the very elusive name of nominalism I understand the view that regards concepts or terms as mere *subjective representations* for externally existing individual things. The words nominalism or terminism may be used interchangeably with the understanding that terminism emphasizes more the logico-propositional character of concepts. Concepts or terms are formulated in linguistic symbols; the natural universal is clothed in the conventional universal. The more the vocalistic, grammatical element is emphasized, and the more universals are considered as common designations and collective names, the stricter, the more verbalistic, is the nominalistic view. On the other hand, an emphasis put on the concept or intention of the soul considered as a universal mother-tongue, results in what we call conceptualism, which is a mitigated form of nominalism.

What is Ockham's position in terms of these formulations? He sometimes implies the possibility of conceptual thinking without words, sometimes seems to hold the view that concepts and words are inseparable. He distinguishes spoken, written, and conceived propositions and says that "as we know the spoken proposition, we know just as truly the mental proposition which has no language".[66] There is no doubt about the fact that the universal for him is basically a meaning, that is, a concept signifying naturally the members belonging under it. Nevertheless he sometimes extends the name 'universal' to the words designating these concepts. The reason that he gives is that whatever is signified by the concept is signified concomitantly by the word as well and *vice versa*.[67]

[64] *In Sent.* II, qu. 25, P.
[65] Lothar Kugler, *Der Begriff der Erkenntnis bei Wilhelm von Ockham* (Breslau, 1913) 28-43.
[66] *In Sent.* I, dist. 2, qu. 4, M.
[67] *Expos. aurea,* Praedicab. Prooem.

Yet he is anxious to add always that the word signifies by institution,[68] while the concept signifies by nature. Words are contrivances; concepts are natural products.[69] The close of his discussions is always in favor of the natural or conceptual universal: "Of a universal that is such by discretion, I do not speak, but I do speak of that one which has whatever is universal in it by its very nature."[70]

To sum up, Ockham stresses the grammatical and verbal element enough to be called a genuine nominalist. At the same time, the center of gravity of his theory of universals lies decidedly in the concept, which classifies him as a conceptualist. To combine both views we may call him a nominalist of the vocalistic-conceptualist type.

The nominalism of Ockham, however, will not be set in its proper light until we see it as a terministic nominalism. John Gerson (1363-1429), characterizing the scholastic polemics of his time, names the two opposing parties "formalistae" and "terministae".[71] By designating the followers of Ockham as terminists he gives us a good hint, for it is in the direction of terminism that we may find the most fruitful approach to the distinctive character of Ockham's epistemology.

Prantl was undoubtedly hitting the nail on the head when he summed up his laborious investigations concerning the "Parteistellung" of Ockham in this sentence: "Die principielle Unterordnung der Universalienfrage unter den byzantinischen[72] Begriff terminus ist die besondere Eigentümlichkeit der Ansicht Occam's."[73] We are familiar with the notion of terminus as being identical with any significatory intention, yet considered in a proposition as subject or predicate. Why has this notion such central significance in Ockham's epistemology? The reason will

[68] *Summa tot. log.* I, 14, f. 6, v. B: "As the word is called common, the same also may be called universal, adding that this is not by the nature of the thing but only by the agreement of users."

[69] In *Quodlib.* IV. qu. 19 we read: "Et ista intentio secunda significat ita *naturaliter* intentiones primas et potest pro eis supponere in propositione, sicut intentio prima significat naturaliter res extra et potest pro eis supponere: "These words prove clearly how wrong Windelband is when in his *A History of Philosophy* (New York, The MacMillan Co. 1923, 343) he calls the "second intentions" arbitrary.

[70] *Summa tot. log.* I, 22, f. 9, v. A.

[71] Prantl, *loc. cit.* IV 146, Anm. 607, 613.

[72] Prantl's famous theory of the "Byzantine logic", of course, has been completely abandoned since the refutations of R. Stapper, Ch. Thurot, and Valentine Rose.

[73] Prantl, *loc. cit.* III 344.

be quickly found if we remember that the essence of the universal lies in the notion of predicability, that is, in the logical property of belonging to its *inferiora* by predication, by *dici de multis.* Precisely because a universal signifies many individuals and can be predicated of them, we call it a universal. Direct signification, as when a first intention refers to a class, does not give a universal. We need the reflecting act of predication to obtain the second intention or the universal. Predication, however, cannot occur except in a logical proposition. Consequently, the signifying intentions, in order to become universals, have to function as terms, that is, as parts of a proposition. An intention of the soul, while it stands outside of a proposition, signifies. When the same intention stands in a proposition, it becomes a term, and it supposits. Because of the fact that the essence of the universal lies in its predicability, the intention has to function as a terminus in a proposition in order to become a universal. For that reason, second intentions are never really mere intentions but always terms as well.[74] Any intention, in order to become a universal, has to be shifted from the psychological realm, from the realm of mere signification, into the logical or propositional realm, into the realm of supposition. This is the meaning of Prantl's statement subsuming Ockham's total doctrine of universals under the heading of the terminus.

These discussions bring us back to our preliminary statement that the whole epistemology and logic of Ockham centers around the two conceptions borrowed from speculative grammar: signification and supposition. The former is more an epistemological, the latter a strictly logical conception. Let us clarify Ockham's meaning concerning the latter.

He defines supposition in the following manner: "By supposition we mean the acceptance of terms for something else so that in a proposition we employ the term for that something."[75] Expressed in a more modern way: in Überweg's *Grundriss*: "Die Supposition ist die Representation dessen, was im Umfange eines Begriffes liegt, durch das diesen Begriff bezeichnende Wort."[76] From the

[74] *In Sent.* I, dist. 23, qu. 1, D.
[75] *Summa tot. log.* I, 63, f. 20, v. B: "Dicitur autem suppositio, *i.e.*, pro aliis positio, ita quod, quando terminus in propositione stat pro aliquo, utimur illo termino pro illo."
[76] Friedrich Überweg, *Grundriss* II 578.

definition of Ockham it is clear that "the supposition is a property of the term yet never except in a proposition".[77] *Supponere* is used by Ockham and in general by the scholastics in an intransitive sense, meaning to supposit, to substitute, to stand for, to represent vicariously. The supposition is threefold: personal, simple, and material. In a personal supposition we accept the terms of a proposition because they are signs of some really existing object.[78] For instance, in the proposition 'man is a rational animal', the term 'man' stands for its signified objects, the individual men, and we accept and employ its supposition. In a material supposition there is no signification but we accept the term for a word or a written symbol. For instance, in the proposition, '*man* is a name', the term *man* supposits, stands for the word, and we accept and employ its substitution.[79] The third type or simple supposition is historically of great significance because of its relation to the clash of realistic and nominalistic points of view. Petrus Hispanus the realist differentiates the personal and simple supposition in the following manner: "The personal supposition is the acceptance of a general term for its *inferiora*. The simple supposition is the acceptance of a term *for the universal thing* signified by the term itself."[80] Now Ockham could not use this definition because he eliminated the *res universalis* from the ontological realm. The simple supposition had to be re-interpreted according to his epistemological criticism. The new, nominalistic definition was formulated this way: "The simple supposition is that in which the term stands for the intention of the soul but not in a significative way."[81] The universal word, then, stands for nothing ontological, but for psychological intentions. Signification, of course, is excluded in a simple supposition, for nothing can be a sign for itself. Ockham uses the following instance for a simple supposition: 'Man is a species'; in this proposition the term 'man' stands for its own concept and we accept and employ this substitution for the concept.

[77] *Summa tot. log.* I, 63, f. 20, v. B.

[78] *Summa tot. log.* C. 64, f. 21, r. A: "The personal supposition generally means that a term stands for its signified object, whether it be a thing outside of the soul or a word or an intention of the soul or something written or any other imaginable thing. Whenever the subject or predicate of a proposition stands for its signified object, we have a case of personal supposition."

[79] *Summa tot. log.* C. 64, f. 21, r. A: "The material supposition is that in which the term does not function in a significative way, but stands either for the word or for a written sign."

[80] *Summulae logicales,* VII. in Prantl, *loc. cit.* III 51, Anm. 203-04.

[81] *Summa tot. log.* C. 64, f. 21, r. A.

This new definition of Ockham, although not exactly a "facteur dissolvant de la synthèse scolastique", as Michalski puts it,[82] may surely be called a symbol of the antagonism which was carried on between the *via antiqua,* the *reales,* and the *via moderna,* the *nominales,* during the ensuing two hundred years.

A comparison of Ockham's notion of signification with his notion of supposition makes it clear that the former has a wider extent than the latter. Only the personal supposition is based on signification, while simple and material suppositions are without any signification at all. The material supposition is restricted to grammar. The simple supposition is used in rational science or logic only. It is the personal supposition, based on signification, and standing for external individual objects, that interests us most in our investigation of how Ockham establishes the validity of knowledge.

Because the object of knowledge is to be found in universal propositions based on individuals, and the essence of any universal was discovered in its predicability or capability to supposit for others, it is evident that Ockham's only way of building a bridge to the extramental world was to use the important property of his terms: supposition. It is because both the first and second intentions can supposit for individual objects that we can claim validity for our knowledge. The fact that the immediate subject-matter of any science is a proposition does not disturb the *Venerabilis Inceptor.* He knows that "although we speak of the thing, yet we speak of it by the intermediacy of propositions and terms".[83] He is well aware that in rational science these terms stand and supposit for each other only. Yet he is firmly convinced that in real science propositions and terms stand and supposit for things.[84] This property of our terms is a sufficient guarantee for Ockham that our knowledge is not a mere subjective construction but can be validated in the objective world also. "It is irrelevant", he says, "for real science, whether the terms of the known proposition are things outside of the soul or only in the soul, taking it for granted all along that they substitute and stand for the things themselves."[85] To express his idea in a different way, we may say that it is irrelevant for the spectroscopist whether the Frauenhofer lines are

[82] K. Michalski, *Les courants philosophiques à Oxford et à Paris pendant le XIV-ème siécle* 67.

[83] *In Sent.* I, dist. 2, qu. 11, P.

[84] *In Sent.* I, dist. 2, qu. 4, C. N.

[85] *In Sent.* I, dist. 2, qu. 4, N.

actually in the sun or are in the spectrum where we analyse them, taking it for granted all along that the spectral lines stand for solar and sidereal chemical elements. Frauenhofer's tomb bears the inscription, *Approximavit sidera*; and we may apply the same word to Ockham, who did his best under the circumstances, and at least approximated to reality by using his theory of supposition.

How Ockham uses supposition to establish the validity of knowledge can be best seen in his theory of truth. For a singular proposition to be true materially, it is not necessary that the predicate should actually, *a parte rei,* inhere in the subject, but it is enough if subject and predicate supposit, stand for, the same thing.[86] The case is the same with general propositions. In order to be true, the subject and predicate of a general proposition do not have to be one and the same actually in the order of things. It is enough if the predicate supposits, that is, stands for, all that the subject stands for.[87]

To sum up, we have been investigating Ockham's theory of knowledge and its inseparable logical implications in two respects. We have been concentrating first on the mind-world relationship in its *psychological aspects* dealing with intentional signs. Our result was that psychologically the mind and the world are related to each other by the causal nexus of natural *signification.* In the second section, we have discussed the *logical aspects* of the mind-world relationship and have found that in Ockham's theory the validity of knowledge can be established logically by means of *supposition.*

These two properties of the terms, signification and supposition, indicate the remarkable bifurcation which we notice in Ockham's nominalistic philosophy. On one side, we are confronted with the most outspoken *empiricism,* on the other, with a logical *formalism.*

The first trend develops from the idea of signification. Reality is pluralistic and individual. Its causal influences result in mental signs, that is, in concrete first intentions which signify their sources of origin.[88] The universal in its psychological being is an act of intellect which naturally signifies the particular objects belonging to it. There is no other universal or common nature in things. Essence and existence coincide.[89] There is no need for any prin-

[86] *Summa tot. log.* I, 2, c. 2. [87] *Summa tot. log.* I, 2, c. 4.
[88] *Quodlib.* IV, qu. 19.
[89] *Quodlib.* II, qu. 7: "Existence and essence signify simply one and the same thing."

ciple of individuation, because there is no common essence to be individualized.[90] Reality in its inmost being is concrete and individual. We formulate and systematize this reality in the real sciences, consisting of propositions, the terms of which stand, by means of personal supposition, for concrete individuals on the basis of natural signification.

The second trend develops along the idea of supposition. Because of the elimination of the ontological universal, terms of the second intention such as *species, genus, differentia,* etc., do not signify anything in the external world. Such terms in propositions can supposit and stand only for their own intentions, that is, admit of only simple supposition. Terms employed in simple supposition were thus cut off from the external world and had to develop in isolation. Their function was restricted to the working out of rules that establish relations between conceptions. The *scientia rationalis,* or logic, with the exclusive use of the *suppositio simplex,* turned into a strictly formalistic *scientia sermocinalis,* which by an exclusive cultivation of the rules of formal relations left any other problem to the metaphysician.[91]

Another important bifurcation was created by Ockham's epistemological dualism between the external world and its representation in the mind. With his theory of signs, he inserted a medium between the knowing mind and the knowable world in such a way that what had been for ages a means of knowledge, became with him the immediate object of knowledge. The setting of the problem of knowledge in this manner became of immeasurable importance for the coming centuries. Ockham's nominalistic formulations, so rich in their implications, contained the seeds of the entire problem of knowledge which was to dominate later centuries of European philosophy.

STEPHEN CHAK TORNAY

UNIVERSITY OF UTAH

[90] *In Sent.* I, dist. 2, qu. 6, P: "Quaelibet res singularis seipsa est singularis . . . ergo quicquid est singulare per nihil additum: est singulare seipso."

[91] *In Sent.* I, dist. 23, qu. 1, D: "Whether the second intentions are really and psychologically or only logically in the soul, has no reference to the problem and is not for the logician to determine. The logician's principal task is to consider the distinction between the names of the first and second intentions. What the logician precisely is expected to say is that, in this proposition 'man is a species', the subject stands for a common something and not for something which it signifies. Whether that common something is real or not real is not his but the metaphysician's business."